PATENT SPECIFICATION

DRAWINGS ATTACHED

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COMPLETE SPECIFICATION

Adhesive Bandage

SPECIFICATION NO. 904,632

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By a direction given under Section 17(1) of the Patents Act 1949 this application ceeded in the name of Johnson and Johnson, a Company incorporated and existing er the laws of the State of New Jersey, United States of America, of 501, George treet, New Brunswick, New Jersey, United States of America.

THE PATENT OFFICE

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flexible backing coated with a pressure-sensitive adhesive composition. Such an adhesive bandage may consist of a simple strip of adhesive tape or may be of the dressing type, in which an absorbent compress or pad is affixed to the flexible adhesively coated backing to expose the adhesive on the parts of the backing beyond the pad. An adhesive bandage of this dressing type may take the form, for example, of a strip, patch, spot or so-called "middle wound" bandage in which a large piece of gauze in the form of a pad has connected thereacross one or more strips of adhesive tape projecting beyond the gauze.

The usual adhesive bandage of the general type described has its exposed adhesive surface and its pad or compress, if such pad is provided, protected by a facing sheet member or members, and such a bandage is sterile and is packaged individually in such a manner that sterility is maintained until the package is opened. For that purpose, the bandage, protectively faced as described, is enclosed in an envelope or wrapper. Before such a bandage can be applied to an injured part of the skin, it is necessary to remove the wrapper and then the facing member or members therefrom, in without distorting the bandage or curling it out of shape, which is designed to permit removal of the adhesive facing and the simultaneous withdrawal of the adhesive bandage without the fingers coming into contact with the pad or compress or with the adhesive surface, which can be conveniently handled for application to the injured skin after at least part of the wrapper is removed without the fingers coming into contact with the pad or compress or with the adhesive surface, which is designed to make it self-evident how the package can be manipulated for its unsealing and removal of the adhesive bandage, which lends itself easily and compactly to storage in a container as part of a pack, and which can be manipulated easily and conveniently in such a container pack for withdrawal of the adhesive bandage from its wrapper without the fingers of the manipulating hand or hands coming into contact with the exposed adhesive of the bandage.

Another object of the invention is to provide a new and improved dispensing container having a pack of the aforesaid individually packaged adhesive bandage units so assembled thereon as to permit the easy with-

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COMPLETE SPECIFICATION

Adhesive Bandage

We, PETER SCHLADERMUNDT, of 8 Park Avenue, Bronxville, New York, United States of America, and WILLIAM HAROEY DENNERLEIN, of 10, Clover Hill Drive, Bethpage, New York, United States of America, LANGDON SAVAGE SIMONS, JR., of 427, 84th Avenue, Northeast, Bellevue, Washington, United States of America, citizens of the United States of America, do hereby declare the invention for which we pray that a patent may be granted to us, and the method by which it is to be performed to be particularly described in and by the following statement:—

The present invention relates to an individual adhesive bandage of the type having a flexible backing coated with a pressure-sensitive adhesive composition. Such an adhesive bandage may consist of a simple strip of adhesive tape or may be of the dressing type, in which an absorbent compress or pad is affixed to the flexible adhesively coated backing to expose the adhesive on the parts of the backing beyond the pad. An adhesive bandage of this dressing type may take the form, for example, of a strip, patch, spot or so-called "middle wound" bandage in which a large piece of gauze in the form of a pad has connected thereacross one or more strips of adhesive tape projecting beyond the gauze.

The usual adhesive bandage of the general type described has its exposed adhesive surface and its pad or compress, if such pad is provided, protected by a facing sheet member or members, and such a bandage is sterile and is packaged individually in such a manner that sterility is maintained until the package is opened. For that purpose, the bandage, protectively faced as described, is enclosed in an envelope or wrapper. Before such a bandage can be applied to an injured part of the skin, it is necessary to remove the wrapper and then the facing member or members therefrom, in the case in which such facing members are separate from the wrapper.

The present invention concerns individually packaged adhesive bandages of the type in which the facing member or members serve not only the function of directly protecting the exposed parts of the adhesive surface but also as part of the individual wrapper for the bandage and has, among its objects, to provide a new and improved bandage especially of this type, which is designed to ensure economy of material and ease of manufacture, which is constructed to permit removal of the combined wrapper and adhesive protection or facing and simultaneous withdrawal of the adhesive bandage by a simple peeling operation without distorting the bandage or curling it out of shape, which is designed to permit removal of the adhesive facing and the simultaneous withdrawal of the adhesive bandage without the fingers coming into contact with the pad or compress or with the adhesive surface, which can be conveniently handled for application to the injured skin after at least part of the wrapper is removed without the fingers coming into contact with the pad or compress or with the adhesive surface, which is designed to make it self-evident how the package can be manipulated for its unsealing and removal of the adhesive bandage, which lends itself easily and compactly to storage in a container as part of a pack, and which can be manipulated easily and conveniently in such a container pack for withdrawal of the adhesive bandage from its wrapper without the fingers of the manipulating hand or hands coming into contact with the exposed adhesive of the bandage.

Another object of the invention is to provide a new and improved dispensing container having a pack of the aforesaid individually packaged adhesive bandage units so assembled thereon as to permit the easy with-

drawal successively of the adhesive bandages from their wrappers in the pack, without the fingers of the withdrawing hand or hands coming into contact with the adhesive of the bandages as they are exposed.

A further object of the invention is to provide a new and improved container having a pack of the aforesaid individually packaged adhesive bandage units assembled thereon in such manner as to permit the adhesive bandages to be removed successively from their wrappers, while retaining the empty wrappers on the container, and while permitting these empty wrappers to be moved clear of the full wrappers.

Various other objects, features and advantages of the invention are apparent from the following description and from the accompanying drawings, in which:—

Figure 1 is a perspective view of one form of adhesive bandage package unit embodying the present invention but shown with the finger tabs at one end spread apart in the process of being opened to withdraw the adhesive bandage therefrom;

Figure 2 is a longitudinal section of the adhesive bandage package unit taken on lines 2—2 of Figure 1 but shown on a larger scale with the different thicknesses exaggerated;

Figure 3 is a transverse section of the adhesive bandage package unit taken on lines 3—3 of Figure 2;

Figure 4 is a transverse section of the adhesive bandage package unit taken on lines 4—4 of Figure 2;

Figure 5 is a perspective showing the wrapper in the construction of Figure 1 in the process of being removed;

Figure 6 is a fragmentary perspective showing the final steps of removing the last remnants of the wrapper from the adhesive bandage unit;

Figure 7 is a longitudinal section of another form of adhesive bandage package unit embodying the present invention;

Figure 8 is a longitudinal section of still another form of adhesive bandage package unit embodying the present invention;

Figure 9 is a longitudinal section of a further form of adhesive bandage package unit embodying the present invention;

Figure 10 is a perspective view of a container, which holds a pack of adhesive bandage package units illustrated of the type shown in Figures 1 to 6 and which in conjunction with such units constitutes an embodiment of the present invention;

Figure 11 is a perspective view of a container which holds a pack of adhesive package units illustrated of the type shown in Figures 1 to 6 and which in conjunction with such units constitutes another embodiment of the present invention;

Figure 12 is a perspective view of a container which holds a pack of adhesive bandage package units illustrated of the type shown in Figure 8 and which in conjunction with such units constitutes still another embodiment of the present invention;

Figure 13 is a perspective view of a container of the book-back type which holds a pack of adhesive bandage package unit illustrated of the type shown in Figure 8 and which in conjunction with such units constitutes a further embodiment of the present invention;

Figure 14 is a perspective view of a container which holds a pack of adhesive bandage package units illustrated of the type shown in Figure 9 and which in conjunction with such units constitutes still another embodiment of the present invention; and

Figure 15 is a perspective view of a container which holds a pack of adhesive bandage package units illustrated of the type shown in Figures 1 to 6 and which in conjunction with such units constitutes still another embodiment of the present invention.

Referring to Figures 1 to 6 of the drawings, the invention is shown therein applied to an adhesive bandage package unit of the elongated strip type having an absorbent compress or pad and exposed adhesive surfaces, although it may be applied to other types of adhesive bandages, as will be described more fully hereinafter. The package unit illustrated consists essentially of an adhesive bandage 10 and an expendable wrapper 11 of flexible material therefor. The adhesive bandage 10 comprises a strip 12 of adhesive tape backing material, which may be either woven or non-woven fibrous material, such as extensible polyvinyl chloride film, and which may have the usual ventilation holes. Deposited on the strip 12 is a layer 13 of pressure-sensitive adhesive, which affords the necessary degree of adhesion for the attachment of the dressing thereto. A dressing pad 14, composed preferably of suitably folded woven or non-woven fabric, paper or other absorbent material, is placed on and secured to the adhesive layer 13. This dressing pad 14 is slightly narrower than the adhesive strip 12 and much shorter, and is centered on the adhesive strip to form exposed tape end sections 16 and 17 of adhesive beyond the ends of the pad.

The wrapper 11 individually packages the adhesive bandage 10, so that after sterilisation, said bandage will remain sterile. For that purpose, this wrapper 11 comprises a long wrapper sheet 20 extending along opposite faces of the adhesive bandage 10 and a shorter wrapper sheet 21 extending around one end of the adhesive bandage to form with said bandage end a finger tab 22 for the purpose to be described and detachably secured to the wrapper sheet 20 to define therewith an envelope for the adhesive bandage.

The specific materials from which the different components of the adhesive bandage package unit are made are preferably those described in Patent Specification No. 754,848. That specification discloses a facing member which serves as protection for the adhesive surface of the bandage and which is smooth and continuous and constituted of organic material substantially inert with respect to the adhesive. This type of facing member serves to develop substantially the full sticking powers of the adhesive to which it is protectively applied. Materials proposed for that purpose in the aforesaid patent are vinyl chloride resins and copolymers thereof with vinyl acetate and vinylidene chloride, cellulose acetate, "Cellophane" (Registered Trade Mark), epoxy resins, etc. and also resins which may be employed as coatings. These materials are also suitable to form for the purpose of the present invention the wrapper sheets 20 and 21 juxtaposed to the adhesive side of the adhesive bandage 10 to serve also as protective facing members therefor. The wrapper sheets 20 and 21 may be made entirely of the inert organic material described, or each may consist of a sheet having an inner coating or lamina of the facing material described applied thereto to form a sheet unit therewith. Also the wrapper sheets 20 and 21 may be made out of paper presenting smooth surfaces for facing and protective contact with the adhesive parts of the bandage.

The longer wrapper sheet 20 has a projecting free end section 24 serving as part of a finger tab 41, a contiguous section 25, a section 26 adhesively secured to part of the exposed tape end section 16 by the layer 13 of pressure-sensitive adhesive thereon, a section 27 extending along and covering the pad 14, a section 28 adhesively secured to the exposed tape end section 17 by the layer 13 of pressure-sensitive adhesive thereon, a flat section 29 reversely folded back along a fold line 30 from the line of sheet sections 24, 25, 26, 27 and 28 and extending along and against the back of the adhesive bandage 10 along the strip 12 thereof and an end section 31 offset along a fold line 32 outwardly from said wrapper section 29 at an acute angle therewith.

The shorter wrapper sheet 21 has a section 33 with an offset end portion 34 lapped to the offset end section 31 of the wrapper sheet 20 and secured thereto in the manner to be described to form a breakable projecting juncture or seam 35 therewith. This shorter wrapper sheet 21 is reversely folded along a fold line 36 and reversely folded inwardly along a fold line 37 to define two overlapping contiguous sections or folds 38 and 39, with the section 38 in lapping contact with the section 25 of the wrapper sheet 20 and with the inwardly folded end section 39 secured to the end portion of the tape end section 16 of the adhesive bandage by the layer 13 of pressure-sensitive adhesive on said tape end section. The section 25 of the wraper sheet 20 is attached to the section 38 of the wrapper sheet 21 by a breakable seal line 40 formed by adhesive or heat-sealing extending transversely thereof. The projecting end section 24 of the wrapper sheet 20 and the part of the contiguous section 25 outwardly beyond the transverse seal 40 conjointly form the finger holding tab 41, and the wrapper sheet 21 with the end section of the adhesive bandage 10 enclosed between the folds thereof form the finger pulling tab 22.

The two wrapper sheets 20 and 21 are wider than the adhesive bandage 10 and are transversely centered with respect thereto, so that the longitudinal sides of these sheets extend beyond the longitudinal sides of the adhesive bandage. To connect the different sections of the wrapper sheet 20 together to form part of an enclosing sealing envelope for the adhesive bandage 10, the sections 25, 26, 27 and 28 on one side of the adhesive bandage up to the transverse seal 40 are secured to the section 29 of the wrapper sheet 20 on the opposite side of the adhesive bandage along their longitudinal confronting margins beyond the longitudinal sides of the adhesive bandage, to form a longitudinal marginal breakable seam 43. Similarly, the longitudinal margins of the sections 33 and 38 of the wrapper sheet 21 on opposite sides of the end section of the adhesive bandage 10 is encloses, and beyond the longitudinal sides of said end bandage section, are secured together substantially up to the transverse seal 40 to form a longitudinal marginal breakable seam 45 which is substantially a continuation of the longitudinal seam 43. The intervening section 39 of the wrapper sheet 21 is preferably narrower than the flanking sections 33 and 38 and coextensive in width with the adhesive bandage 10, to permit the longitudinal margins of these sections 33 and 38 to come together in face contact to form the seam 45. The section 38 of the wrapper sheet 21 inwardly beyond the transverse seal 40 up to the fold line 37 is of corresponding reduced width to permit the marginal parts of the section 25 of the wrapper sheet 20 to come in contact with the opposed marginal parts of the section 29 of the wrapper sheet 20 inwardly of the seam 35 to form continuations of the marginal seam 43.

The character of the means employed to form the different breakable junctures 35, 40, 43 and 45 depends on the character of the wrapper sheets 20 and 21. If these wrapper sheets 20 and 21 are of thermoplastic material, then these junctures 35, 40, 43 and 45 may be made by heat-sealing, strong enough to seal and to protect the sterility of the adhesive bandage 10 but weak enough to permit the

opposed sections of the wrapper 11 along these junctures to separate upon pulling action, without tearing the wrapper. If the wrapper material is not thermolastic, or even if thermoplastic, these junctures 35, 40, 43 and 45 may be formed with adhesive of a character which seals and protects the sterility of the adhesive bandage 10 but which nevertheless assures the smooth, easy, orderly removal of the wrapper 11 by peeling operation, in a manner to be described, without tearing the wrapper.

The finger tabs 22 and 41 are exposed and are marked as shown in Figure 1 to indicate their functions and the manner in which they can be manipulated to effect the withdrawal of the adhesive bandage 10 therefrom. However, even without such markings, it is self-evident from the construction of the package unit, how the unit can be unsealed and the adhesive bandage 10 removed therefrom. The singular construction of the package unit at its tab end directs attention to this end.

The adhesive bandage package unit, formed as described, is sterilised either by chemical sterilisation or by steam sterilisation in a manner well-known in the adhesive bandage art. The materials employed in forming this package unit will effectively withstand sterilisation. The adhesive bandage package unit will maintain its sterility, until the package unit is opened.

To effect withdrawal of the adhesive bandage 10 from the wrapper 11, the tab 41 is held by the fingers of one hand, while the other tab 22 is grasped by the fingers of the other hand and pulled to break the transverse seal 40. Thereafter, continued pull on the finger tab 22 while the tab 41 is being held causes the marginal seam 43 to open up progressively and gradually by a peeling action and at the same time causes the adhesive bandage 10 to peel away from the sections 26, 27 and 28 of the wrapper sheet 20 by an operation, which does not fold or curl the adhesive bandage, as shown in Figure 5. Although the wrapper sheet 20 is flexible, it is sufficiently stiff to assist in preventing curling of the adhesive bandage 10 during this operation.

After the tab 41 has been pulled to the extent of releasing the adhesive bandage 10 completely from the sections 26, 27 and 28 of the wrapper sheet 20 and while these sheet sections are aligned with the section 29 of the wrapper sheet, continued pull on the tab 41 lengthwise of the wrapper sheet 20 will cause said sheet to pull away from the wrapper sheet 21 at the seam 35 until the wrapper sheet 20 is completely removed from the wrapper sheet 21. At this stage, the fingers of one hand continue to hold the adhesive bandage 10 through the finger tab 22, so that the adhesive bandage can be applied through the substantial large area of adhesive on said bandage exposed to the skin or surface affected, without the fingers coming into contact with the bandage. After the adhesive bandage 10 has been applied to the affected skin or surface except for the end carrying the finger tab 22, the offset end portion 34 of the wrapper sheet 21 serving as a tab is pulled to progressively open up the seam 45, until the end portion of this wrapper section is aligned with the wrapper section 38 as shown in Figure 6, whereupon continued pull on this end section longitudinally peels the wrapper section 39 from the end portion of the adhesive section 16 of the adhesive bandage 10. With the wrapper 11 completely removed from the adhesive bandage 10, and the adhesive bandage partially applied, the unapplied part thereof can be pressed down on the affected skin or surface to complete the application to the skin or surface.

The construction of Figure 7 in similar to that of Figures 1 to 6, except as otherwise indicated. In this construction of Figure 7, the wrapper 11*a* for the adhesive bandage 10 comprises two wrapper sheets 20*a* and 21*a*. The wrapper sheet 20*a* has sections 24*a*, 25*a*, 26*a*, 27*a* and 28*a* corresponding to the sections 24, 25, 26, 27 and 28 respectively of the wrapper 20 in the construction of Figures 1 to 6 and similarly attached to the face of the adhesive bandage 10. The wrapper sheet 21*a*, however, extends along the full length of the back of the strip 12 and is secured at one end of the wrapper sheet 20*a* beyond the corresponding end of the adhesive bandage 10 by means of heat-sealing or adhesive of the character described in connection with the construction of Figures 1 to 6, to form an end transverse seam 46. At the other end, the wrapper sheet 21*a* has a section 38*a* folded inwardly along the fold line 36*a* and a contiguous section 39*a* folded inwardly along the fold line 37*a*. These two wrapper sections 38*a* and 39*a* overlap with the section 38*a* in lapping contact with the section 25*a* of the wrapper sheet 20*a* and with the inwardly folded end section 39*a* attached to the end portion of the tape end section 16 of the adhesive bandage 10 by the layer 13 of pressure-sensitive adhesive on said tape end section.

The two wrapper sheets 20*a* and 21*a* are secured together along the longitudinal margins beyond the side edges of the adhesive bandage 10 up to the end transverse end seam 46 by heat-sealing or adhesive of the character described in connection with the construction of Figures 1 to 6, to form a seam corresponding to the marginal seam 43 in the construction of Figures 1 to 6.

The section 25*a* of the wrapper sheet 20*a* is secured to the section 38*a* of the wrapper sheet 21*a* along a strip area by similar heat-sealing or adhesive to form a transverse breakable seal 40*a*, and the longitudinal projecting

margins of the sections 29*a* and 38*a* of the wrapper sheet 21*a* are similarly secured together along their longitudinal margins to form a marginal seam corresponding to the marginal seam 45 in the construction of Figures 1 to 6, the intervening fold section 39*a* of the wrapper sheet 21*a* being reduced in width to permit the margins of said sheet sections 29*a* and 38*a* to come together into face contact to form the seam described.

The two wrapper sheets 20*a* and 21*a*, secured together as described, define at one end a holding finger tab 41*a* and a pulling finger tab 22*a* corresponding to the finger tabs 41 and 22 respectively in the construction of Figures 1 to 6.

In withdrawing the adhesive bandage 10 from the wrapper 11*a* in the construction of Figure 7, the finger tab 41*a* is held by the fingers of one hand, while the tab 22*a* in the fingers of the other hand is pulled to open up progressively the marginal seam 43*a* and to peel the adhesive bandage away from the wrapper sheet 20*a*, until the end transverse seam 46 is reached, whereupon further pull opens up this end seam and effects complete detachment of the wrapper sheet 20*a* from the package unit. With the fingers of one hand holding the tab 22*a*, the partially exposed adhesive bandage 10 is applied to the affected skin or surface except at the covered end near the tab 22*a*, and the wrapper sheet 21*a* is then pulled to peel off the folded end section 39*a* of the wrapper sheet 21*a* from the covered end section of the bandage. With the wrapper sheet 21*a* completely removed from the adhesive bandage 10, the end section of the bandage last exposed can be pressed down on the affected skin or surface to complete the application of the bandage.

The construction of Figure 8 is similar to that of Figures 1 to 6, the only difference being that the wrapper sheet 20*b* corresponding to the wrapper sheet 20 in the construction of Figures 1 to 6, instead of having an end section of said wrapper sheet corresponding to the end section 24 in Figures 1 to 6, projecting longitudinally to form part of the holding finger tab, has its end section 24*b* folded inwardly along the fold line 50 and attached to the section 38*b* of the wrapper sheet 21*b* by heat-sealing or adhesive of the character described in connection with the construction of Figures 1 to 6, to form the breakable end transverse seal 40*b* and to define the finger tabs 22*b* and 41*b* outwardly beyond said seal. The marginal longitudinal seams in the wrapper sheets 20*b* and 21*b*, to form an envelope for the adhesive bandage 10, are similar to those in the constructions of Figures 1 to 6, except that at the end of the package unit near the finger tabs 22*b* and 41*b*, the margins of the section 33*b* of the wrapper sheet 21*b* are secured by heat-sealing or adhesive of the character described to the margins of the section 38*b* of the wrapper sheet 21*b* outwardly beyond the transverse seal 40*b*, while the margins of the outer fold of the section 25*b* of the wrapper sheet 20*b* inwardly of the transverse seal 40*b* are similarly secured to the margins of the section 29*b* of the wrapper sheet 20*b*.

The wrapper sheet 20*b* is folded along the fold line 30*b* at one end of the adhesive bandage 10, as in the constructions of Figures 1 to 6, to divide the sheet into panels 24*b*, 25*b*, 26*b*, 27*b*, 28*b* and panel 29*b* on opposite sides of the adhesive bandage.

The package unit of Figure 8 may be opened as described in connection with the package unit of Figures 1 to 6.

Figure 9 shows an embodiment similar to that of Figures 1 to 6 and similar to that of Figure 8, the only difference being that the wrapper sheet 20*c*, instead of presenting a single layer along the entire front face of the adhesive bandage 10 to form a facing member therefor, has its front part doubly folded along a fold line 51 to form two overlapping main sections 52 and 53, the inner section 52 serving as a facing member for the adhesive bandage, while the outer section 53 forms merely an outer wrapper member. At one end of the package unit, the two wrapper sheets 20*c* and 21*c* define finger tabs 22*c* and 41*c* similar to those in the construction of Figure 8, the infolded end section 24*c* of the finger tab 41*c* being secured to the section 38*c* of the finger tab 22*c* by a breakable transverse seal 40*c*. At the opposite end of the package unit, the wrapper sheet 20*c* is folded along the line 30*c* to define the wrapper section 29*c* along the back of the adhesive strip 12.

The package unit of Figure 9 may be opened as described in connection with the package unit of Figures 1 to 6.

The invention has been shown in Figures 1 to 9 applied to a form of adhesive bandage containing an elongated rectangular strip of adhesive to which is affixed an absorbent rectangular pad or compress. However the invention may be applied to adhesive bandages of other shapes. For example, it can be applied to a so-called patch type of adhesive bandage, in which a square piece of backing material coated with adhesive has a square absorbent pad in the centre or to a so-called spot type of adhesive bandage in which a round piece of backing material coated with adhesive has a round absorbent pad in the centre, or to a so-called "middle wound" type of bandage in which a comparatively large piece of gauze in the form of a pad has connected thereacross one or more strips of adhesive tape projecting beyond the gauze.

Also the adhesive bandage protected and wrapped in accordance with the present invention may consist simply of a piece of adhesive

tape without an absorbent pad, such as the pad 14.

Figures 10 to 15 show the manner in which the package units of Figures 1 to 9 may be packed in a dispensing container in accordance with the present invention. Figure 10 shows a type of container 59 illustrated in connection with the package units of Figures 1 to 6, although it is apparent that the container is adaptable with the other types of package units described. In this embodiment of Figure 10, the container 59 (preferably made of stiff sheet material such as cardboard, leather or synthetic organic plastic) comprises a rear cover 60 having an end section 61 folded rectangularly in relation to said rear cover to form a top defining a pocket 62 to receive one end of the pack of package units 63 of Figures 1 to 6. The cover 60 has a strap 64 near the bottom on the inside preferably of elastic material to receive the empty wrappers as the adhesive bandages are successively removed therefrom to keep them clear of the full package units.

The package units 63 of Figures 1 to 6 are arranged in a pack with the tab ends 22 and 41 at the top, and the projecting end sections 24 of the wrapper sheets 20 extending into the pocket 62 are secured together and to the top 61 of the cover 60 by a staple 65. The package units 63 will thereby hang down from the top 61 of the cover 60 by the projecting tab sections 24 with the wrapper sections 29 of the wrapper sheets 20 facing rearwardly towards the cover.

The container 59, loaded as described, may be employed as a portable device, or may be supported or attached to a wall in any suitable manner for easy dispensing operations.

The adhesive bandages 10 are removed successively from their respective wrappers 11 from the rear towards the front. For that purpose, when an adhesive bandage 10 is desired, the cover 60 is raised to dot and dash position shown (in case the container is portable) or the pack is lifted away from the cover 60 (in case the container is attached to a wall with said cover against said wall), and the finger tab 22 of the rearmost package unit 63 is grasped by the fingers of one hand and pulled down, while the end tab section 24 of the wrapper sheet 20 of said unit is held by the staple 65. This action causes the adhesive bandage 10 to peel way from the wrapper sheet 20 and eventually causes the adhesive bandage to be entirely removed from the wrapper sheet 20, while the empty wrapper 20 remains on the container 59 and while the adhesive bandage retains the wrapper sheet 21 forming the finger tab 22. The adhesive bandage 10 can then be partially applied to the affected skin or surface, while held through the finger tab 22, and the wrapper sheet 21 removed in the manner described in connection with the construction of Figures 1 to 6, to permit the completion of the application of the adhesive bandage.

The empty wrapper sheet 20, folded approximately along the line 30 and retained on the container staple 65, may be stored out of the way of the next full package unit 63 by slipping it under the strap 64 of the cover 60. All subsequent empty wrapper sheets 20 may be similarly stored to permit easy access to the next full package unit 63.

Instead of arranging the pack of package units for the successive dispensation of the adhesive bandages 10 therefrom from the rear to the front, as in the construction of Figure 10, the pack may be reversely arranged to allow the adhesive bandages to be dispensed successively from the front towards the rear. In that case, some other means is preferably provided, other than that shown in Figure 10, to store the empty wrapper sheets clear of the full package unit. Figure 11 shows a suitable container for that purpose. In this construction, the container comprises a flat back 70 of rigid material suitable for support on a wall. Affixed to the upper part of this back 70 is a bracket 71 in the form of a flat wide U-shaped member having side arms 72 with reduced ends passing through said back and upset thereagainst for rigid anchorage, and an inter-connecting cross-piece 73 spaced from said back by a gap 74 serving the purpose to be described. The pack of package units 63, similar to those of Figures 1 to 6, are supported on this bracket 71 and suspended therefrom in any suitable manner. These package units 63 are arranged in upright position with their tab ends upward and with the finger tab 22 of each package unit in front and the holding tab 41 of the package unit in back.

For supporting the package units 63 in a pack from the bracket 71 in the manner described, the bracket cross-piece 73 may have an opening through which the projecting end sections 24 of the wrapper sheets 20 of the package units 63 extend, and pins, a key, a staple or similar device passing through said projecting wrapper sections may seat on said bracket cross-piece for the support of said package units.

For removing an adhesive bandage 10 from its wrapper 11, the finger tab 22, which is exposed and easily accessible at the top in front just below the bracket 71, is pulled down while the tab 41 is held by the bracket. This operation serves to peel the adhesive bandage 10 away from the sections 25, 26, 27 and 28 of the wrapper sheet 20. Continued pulling action on the tab 22 is transmitted to the section 29 of the wrapper sheet 20 and serves to separate completely the adhesive bandage 10 from the wrapper sheet 20 which remains supported on the bracket 71. The released adhesive bandage 10 held by

the fingers of the hand through the tab 22 may be applied to the affected skin or surface and the wrapper sheet 21 defining said tab peeled off the bandage, as already described in connection with the construction of Figures 1 to 6. The empty wrapper sheet 20 is folded back and slipped through the gap 74 between the bracket cross-piece 73 and the back 70 and against said back, to clear the next full package unit and render it easily accessible for the withdrawal of the adhesive bandage 10 therefrom.

Figure 12 shows a modified form of dispensing container adapted particularly for use in connection with the package units of Figures 8 and 9. The container is illustrated in connection with the form of package unit 80 shown in Figure 8 and comprises a back 81 of rigid material adapted to be supported from a suitable wall. The package units 80 are arranged as a pack with their tab ends at the bottom and with the tab 41*b* of each package unit in front and the tab 22*b* of the unit in the back. The pack is supported from the back 81 by a staple 82 passing through the parts of the wrapper sheets 20*b* between the fold lines 30*b* and the adjacent ends of the adhesive bandages 10.

The adhesive bandage 10 may be conveniently withdrawn successively from the wrappers from the front to the back. For that purpose, while the tab 41*b* of the front package unit is held downward by the fingers of one hand, the tab 22*b* of said front unit is pulled forwardly by the fingers of the other hand to peel the front sections 25*b*, 26*b*, 27*b* and 28*b* of the wrapper sheet 20*b* from the adhesive side of the adhesive bandage 10. After wrapper sections 25*b*, 26*b*, 27*b* and 28*b* have been so removed from the adhesive bandage 10, the tab 22*b* is pulled down, thereby separating the wrapper sheet 21*b* from the wrapper sheet 20*b* and withdrawing the adhesive bandage completely away from the wrapper sheet 20*b*. The empty wrapper 20*b* remains suspended from the back 81 through the staple 82, while the adhesive bandage is retained through the tab 22*b* by the fingers of one hand. The adhesive bandage 10 can then be applied to the affected skin or surface and the wrapper sheet 21*b* removed, in the manner already described.

The empty wrappers 20*b* may be left haging from the staple 82 on the back 81 or may be stored clear of the full package units 80, in the manner similar to that show in connection with the constructions of Figures 10 and 11.

Figure 13 shows a portable container for holding the package units of the constructions of Figures 1 to 9. The container is particularly adaptable for use in connection with the package units shown in Figures 8 and 9 and is illustrated specifically in connection with the package unit 80 of Figure 8.

The container of Figure 13 is of the book-back type and comprises a single sheet 85 of comparatively stiff material such as cardboard, leather or synthetic organic plastic, folded around the pack to form a case or folder therefor and having an end pocket section 86 which straddles the end of the pack opposite the tab end and which is secured thereto by a staple 87 passing through the parts of the wrapper sheet 20*b* between the fold lines 30*b* and the adjacent ends of the adhesive bandage 10. In closed position of the container, the free end 88 of the sheet 85 is slipped under the opposite end of the sheet to be frictionally retained thereby. The adhesive bandages 10 may be withdrawn successively from their respective wrapper on the container of Figure 13, while the empty wrapper sheets 21*b* remain behind on the container, in the manner described in connection with the container of Figure 12.

Figure 14 shows a portable container, which is similar to that of Figure 13, to receive package units, such as the package units 90 of Figure 9. This container comprises a single sheet 91 of comparatively stiff material, such as cardboard, leather or synthetic organic plastic, folded around the pack to form a case or folder therefor and having an end pocket section 92 straddling the end of the pack opposite the tab end. This container end pocket section 92 is secured to the pack of package units 90 by a staple 93 passing through the parts of the wrapper sheet 20*c* between the fold line 30*c* and the adjacent ends of the adhesive bandage 10. The sheet 91 is folded to form in addition to this straddling end pocket section 92 a back 94 and a front cover flap section 95, the free end of which is adapted to be slipped underneath the edge of the stapled down end section 92 in the closed position of the container.

For storing the empty wrapper 20*c*, the back 94 of the container has on its inside near the outer end a strap 96 of elastic material under which the empty wrapper sheets 20*c* may be tucked.

The package units 90 are arranged in the container of Figure 14 with the tab 41*c* of each package unit in front and the tab 22*c* behind. In the operation of withdrawing the adhesive bandages 10 from their wrappers successively, the rearmost package unit 90 is opened first, the order of withdrawal being frontwise. In according with one procedure of this operation, the tab 22*c* is held by the fingers of one hand, while the tab 41*c* is grasped by the fingers of the other hand and pulled frontwise away from the tab 22*c*, to peel the section 52 of the wrapper sheet 20*c* away from the adhesive bandage 10. At this stage of the operation, the tab 22*c* is pulled to break the sealed juncture between the wrapper sheets 20*c* and 21*c* and to separate thereby the wrapper sheet 20*c* from the

wrapper sheet 21*c* forming part of the tab 22*c*. This effects complete separation of the adhesive bandage 10 from the wrapper sheet 20*c*, while said wrapper sheet remains attached to the container by the staple 93.

As an alternative procedure, the two tabs 22*c* and 41*c* are grasped by the fingers of the two hands and pulled apart lateral to the planes of said tabs to break the transverse seal 40*c* or this seal may be broken by merely pulling on the tab 22*c* lengthwise. After this seal 40*c* has been so broken, the tab 22*c* is pulled lengthwise of the package unit 90, to break the sealed juncture between the wrapper sheets 20*c* and 21*c* across their offset confronting ends and to separate thereby these sheets. Continued pull on the tab 22*c* in this direction will correspondingly pull the adhesive bandage 10 lengthwise and cause the bandage to peel neatly and lengthwise away from the section 52 of the wrapper sheet 20*c* while said section 52 unfolds, until the adhesive bandage with the wrapper sheet 21*c* attached thereto in the form of tab 22*c* is completely withdrawn from the wrapper sheet 20*c*, while said wrapper sheet 20*c* remains attached to the container by the staples 93.

The adhesive bandage 10, separated from the wrapper sheet 20*c* by either procedure described, may be applied and the wrapper sheet 21*c* removed from said bandage in the manner described. The sections 53 and 29*c* of the empty wrapper sheet 21*c* remain on the container along its back 94, while the section 52 of said wrapper sheet is extended along the inside of the cover flap section 95 of the container and can be tucked under the strap 96 to store the empty wrapper section 52 clear of subsequent full package units in front of said empty wrapper section 52. All of the empty wrapper sections 52 can be similarly stored, until the last adhesive bandage 10 from the last package unit 90 in front is withdrawn.

Figure 15 shows a modified form of container adaptable, for example, for use in connection with the form of package unit 63 illustrated in Figures 1 to 6. This form of container is constructed from a single sheet of flexible material, such as leather or textile fabric, folded to form a back 100, a front cover 101 connected to one end of the back by a fold line 102 and a pocket 103 at the other end of the back to receive the free end of said cover in closed position of the container. Connected to the inside of the front cover 101 near its free end is a strap 104 for storing the empty wrappers 20 thereunder. At one end near the fold line 102, a tab 105 preferably cut out from the back 100 is provided with a hole 106 to receive a nail or similar member by which the container may be supported from a wall.

The package units 63 similar to those of Figures 1 to 6, are arranged in a pack, with their tab ends nearest the fold line 102 of the container and with the finger tab 22 of each package unit in front and the holding tab 41 of the package unit in the back. A staple 107 passes through the upper end of the cover 101 and the stack of projecting end sections 24 of the wrapper sheets 20 defining the holding tabs 41.

The withdrawals of the adhesive bandages 10 successively from their wrappers 11 are effected from front to back in the manner described in connection with the construction of Figure 11. The empty wrapper sheets 20, however, are tucked underneath the strap 104 of the cover 101 to keep them clear of the full package units 63.

While the invention has been described with particular reference to specific embodiments, it is to be understood that it is not to be limited thereto, but is to be construed broadly and restricted solely by the scope of the appended claims.

WHAT WE CLAIM IS:—

1. An adhesive bandage package unit comprising an adhesive bandage including adhesive tape presenting an adhesive surface, a wrapper for the adhesive bandage, part of which serves as a facing member in contact with the adhesive surface, and comprising a pair of wrapper sheets, one of said wrapper sheets having a section wrapped around one end of the adhesive bandage and removably attached to the adhesive bandage to form with the adhesive bandage end a tab by which the adhesive bandage with said one wrapper sheet attached may be withdrawn from the other wrapper sheet, and breakable juncture means connecting said wrapper sheets together.

2. An adhesive bandage package unit according to Claim 1, wherein said one wrapper sheet has its end section folded and wrapped around one end of the adhesive bandage and attached to the adhesive bandage by the adhesive on said adhesive surface to form said tab, said one wrapper section being adapted to be removed from the adhesive bandage by a peeling action after the adhesive bandage with said one wrapper sheet attached has been withdrawn from said other wrapper sheet.

3. An adhesive banage package unit according to Claim 2 wherein the end section of said one wrapper sheet is folded and wrapped around said one end of the adhesive bandage to form three layers, one layer extending along the rear face of the adhesive bandage, the other two layers overlapping and extending along the front face of the adhesive bandage with the inner layer attached to the adhesive bandage by the adhesive on said adhesive surface to form said tab by which the adhesive bandage with said one sheet attached may be withdrawn from the other wrapper sheet.

4. An adhesive bandage package unit according to Claim 1, 2 or 3 wherein said other

wrapper sheet has a section forming a tab adjacent to the first mentioned tab.

5. An adhesive bandage package unit according to Claim 4, wherein the two tabs are removably secured together across a transverse narrow region to form a seal easily broken when the tabs are pulled relatively apart.

6. An adhesive bandage package unit according to Claim 4, wherein the end section of said other wrapper sheet forming the second mentioned tab projects outwardly beyond the first mentioned tab to form the second mentioned tab, and wherein the two tabs are removably secured together across a transverse seal easily broken when the tabs are pulled relatively apart.

7. An adhesive bandage package unit according to Claim 6 wherein the end section of said other wrapper sheet forming the second-mentioned tab is free from folds.

8. An adhesive bandage package unit according to Claim 4, wherein the end section of said other wrapper sheet forming the second-mentioned tab has an inwardly folded and part removably secured to the first mentioned tab across a transverse seal easily broken when the tabs are pulled relatively apart.

9. An adhesive bandage package unit according to any of Claims 4—8, wherein said wrapper sheets extend along said adhesive bandage on opposite sides thereof to form an envelope therefor and said tabs are formed on said wrapper sheets at one end, the opposite ends of said wrapper sheets being connected together by said breakable juncture means.

10. An adhesive bandage package unit according to Claim 9 wherein the marginal part of the wrapper sheets on opposite sides of the adhesive bandage are attached together to form conjointly the envelope, the end section of said one wrapper sheet not wrapped around an end section of the adhesive bandage being joined to an end section of the other wrapper sheet by a seam broken when said wrapper sheets are pulled apart relatively endwise.

11. An adhesive bandage package unit according to any of Claims 4—8 wherein end sections of said wrapper sheets are joined by a seam broken when wrapper sheets are pulled apart endwise said seam being formed near the first mentioned tab, and said other wrapper sheet extends along one face of the adhesive bandage and is reversely folded around one end of the adhesive bandage to extend along the other face of the adhesive bandage to the seam.

12. An adhesive bandage package unit according to Claim 10 or 11, wherein the end sections of said wrapper sheets forming the seam are offset from the adjacent parts of their respective wrapper sheets to permit the offset end section of said other wrapper sheet upon rupture of the seam to be used as a tab to permit said one wrapper sheet to be peeled off the adhesive bandage.

13. An adhesive bandage package unit according to Claim 10 wherein said seam is formed near the end of the adhesive bandage opposite to the end section of the adhesive bandage to which said one wrapper sheet is attached, said wrapper sheets extending along opposite faces respectively of the adhesive bandage between the seam and the tabs.

14. An adhesive bandage package unit according to Claim 9 wherein said wrapper sheets are formed by a single strip of sheet material folded at one end of said adhesive bandage, the adjacently placed marginal parts thereof on opposite sides of the adhesive bandage being attached together to form conjointly the envelope.

15. An adhesive bandage package unit according to any of the preceding claims wherein said other wrapper sheet has a part reversely folded along a fold line adjacent to said tab to form two section extending along the adhesive surface, the infolded section serving as a facing member for the adhesive surface.

16. An adhesive package unit constructed and arranged substantially as described herein and shown in Figures 1—6, 7, 8, or 9 of the accompanying drawings.

17. A pack of adhesive bandage package units, as claimed in any of the preceding claims, within a container, and means for securing said package units thereto for successive dispensation.

18. A pack of adhesive bandage units according to Claim 17, wherein the tab on each said adhesive bandage unit is manipulable to withdraw the adhesive bandage from at least a part of said wrapper, and said means for securing said package units to said container secures said wrapper parts of said bandages thereto with said tabs accessible for bandage withdrawing manipulation, said securing means serving to hold onto the empty wrapper parts when the adhesive bandages have been withdrawn therefrom.

19. A pack of adhesive bandage units according to Claim 17 or 18, wherein said container comprises a sheet folded to form a cover and an end pocket section receiving the pack of package units, and said securing means secures a part of each wrapper to said end pocket section.

20. A pack of adhesive bandage units according to Claim 18 wherein said container presents a rear cover and an upper pocket end section, wherein package units are arranged in the pack with the tab of each package unit in the rear of the tab section of the latter package unit, and wherein the tab sections of the package units extend into the pocket end section of the container and are fastened to said pocket end section by said securing means and whereby the adhesive

bandages may be withdrawn from their said other wrapper sheets successively from the rear to the front of the pack.

21. A pack of adhesive bandage units according to Claim 18, wherein said container comprises a back and said securing means comprises a U-shaped bracket fastened to the upper end of the back and forming with the back a gap through which said other wrapper sheets when emptied may be folded over to extend along the back clear of the full package units, wherein the package units in the pack are arranged with the tab of each package unit in front of the tab section of the latter package unit, and wherein the tab sections of the package units are secured to said bracket, whereby the adhesive bandages may be withdrawn from their said other wrapper sheets successively from front to the rear of the pack.

22. A pack of adhesive bandage units according to any of Claim 17—21, wherein said container comprises means for storing the empty wrapper parts clear of the full package units while the emptied wrapper parts remain attached to the container.

23. A pack of adhesive bandage package units according to Claim 17 or 18, wherein said container is similar in form to a book-back.

24. A pack of adhesive bandage package units according to Claim 23, wherein said container has a back and a front cover hinged together, and said front cover has means for storing said other wrapper sheets along the back and the front cover after said other wrapper sheets have been emptied to keep them clear of the full package units.

25. A pack of adhesive bandage package units according to Claim 17, wherein said container comprises a single sheet of flexible material, folded to form a back, a front cover connected to one end of the back by a fold line and a pocket at the other end of the back to receive the free end of said cover in closed position of the container.

26. A pack of adhesive bandage package units according to Claim 18, wherein said container comprises a single sheet of flexible material, folded to form a back member and a front cover member connected to one end of the back member by a fold line, wherein said pack is arranged between said back member and said cover member with said tab sections near said fold line, and wherein said securing means comprises a staple passing through said tab sections and one of said container members.

27. A pack of adhesive bandage units constructed and arranged substantially as hereinbefore described and shown in any of Figures 10—15 of the accompanying drawings.

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Fig.1.

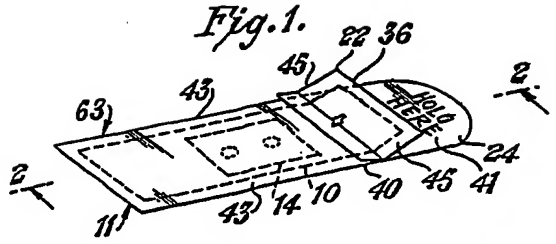
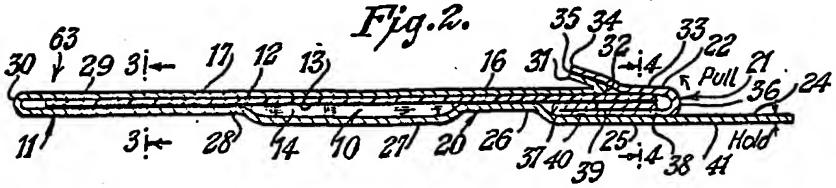


Fig.2.



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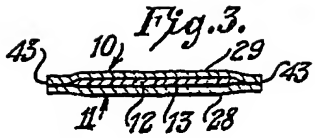

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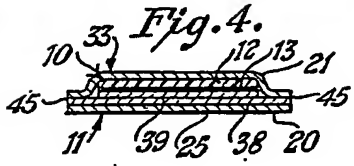

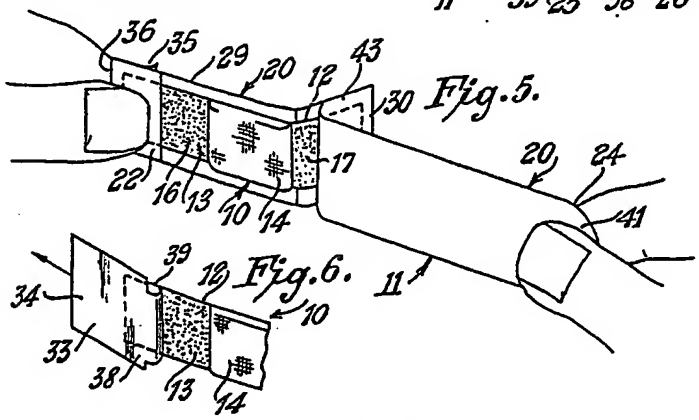

Fig.5.

Fig.6.

Fig.7.

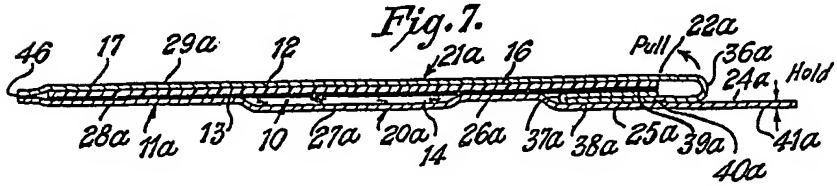

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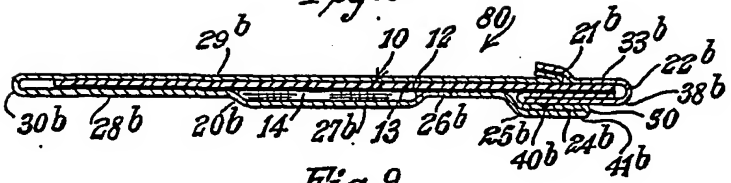
Fig.8.



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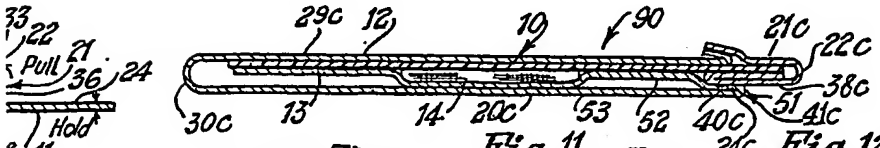

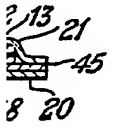

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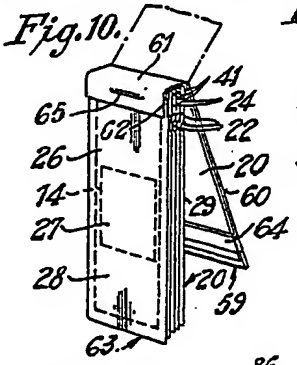
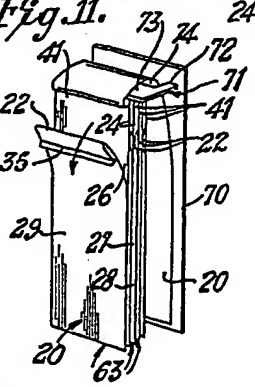


Fig.11.



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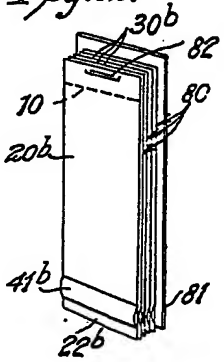

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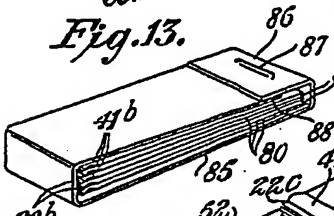
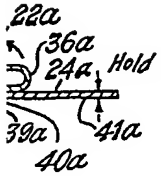


Fig.14.

Fig.15.



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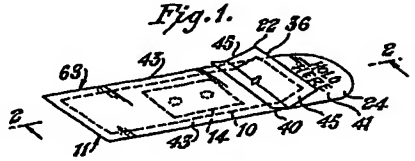

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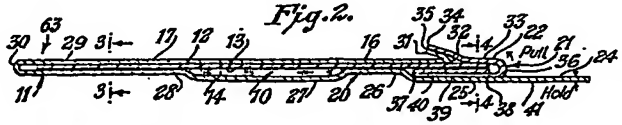

Fig.3.

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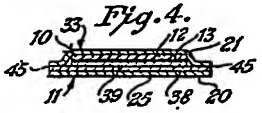

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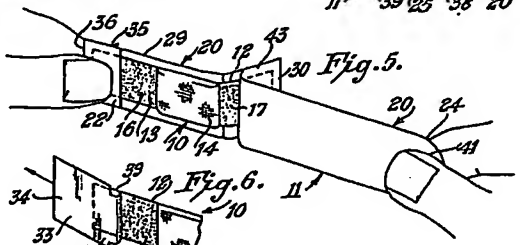
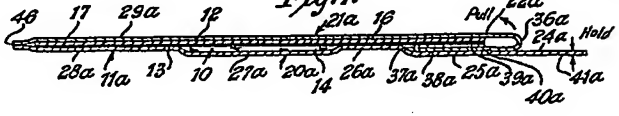


Fig.6.

Fig.7.



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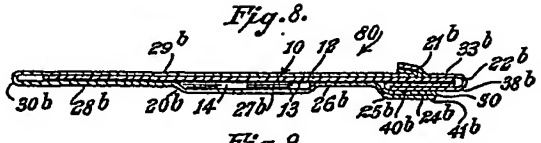

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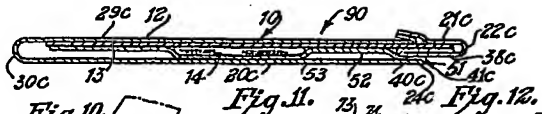

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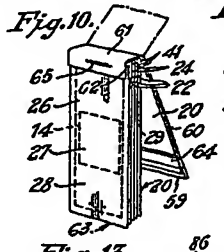

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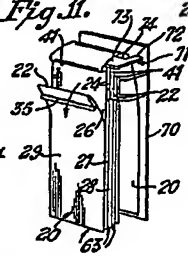

Fig.12.

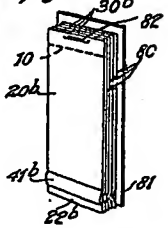

Fig.13.

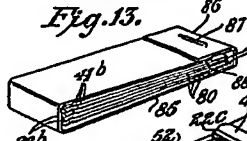

Fig.14.

Fig.15.